

## CLAIMS

What is claimed is:

1. A small four-stroke gasoline engine with oil mist lubrication comprising:  
an upper case body 3 and a lower case body 4, a crankshaft assembly 1, a piston  
assembly 8, a cylinder head assembly 5, a cylinder head cover 6 and a lubrication oil  
way of engine, and the lubrication oil way of engine includes a crankshaft chamber B,  
a camshaft chamber C, an upper rocker arm chamber D and a condensation  
chamber E, and the camshaft chamber C is connected to the upper rocker arm  
chamber D via a tappet cavity 13, and the upper rocker arm chamber D  
communicates with the condensation chamber E, wherein an oil mist chamber A is  
formed by an upper case body 3 and a lower case body 4 on one side of the  
crankshaft chamber B, and the bottom of the oil mist chamber A communicates with  
the crankshaft chamber B, an oilsplash impeller 2 is fixed onto the crankshaft which  
extends into the oil mist chamber A, an oil way 12 is provided on the upper case  
body 3 which is in between the oil mist chamber A and the camshaft chamber C, an  
oil return way 15 is provided on a cylinder head assembly 5, an oil return way 14 is  
provided on the upper case body 3, and the upper interface of the oil return way 15  
communicates with the upper rocker arm chamber D, and its lower interface is  
connected to the oil return way 14, and the lower interface of the oil return way 14  
communicates with the crankshaft chamber B.
2. The small four-stroke gasoline engine with oil mist lubrication as in Claim 1,  
wherein a reed valve 7 is provided at the interface of cylinder head assembly 5  
between the oil return way 15 and the oil return way 14.
3. The small four-stroke gasoline engine with oil mist lubrication as in Claim 2,  
wherein a spacing plate 11 is provided on the reed valve 7.